

IN THE SPECIFICATION:

Please replace the paragraph, from line 3 to line 5 on page 35, with the following paragraph.

Figure 23 is an alternative embodiment of encoding binary numbers using the principle of binomial expansion. With reference to ~~3102-310~~ of Figure 23, the following recurrence relation hold true for all binomial coefficients.

Please replace the paragraph, from line 17 on page 36 to line 5 on page 37, with the following paragraph.

The value of  $(6)_3$  is looked up in the codebook at 320. The numerical value is 20. The second bit is then set to one and the algorithm is applied recursive by comparing  $23-20=3$  to  $(5)_2$ . The next three recursion are for  $(5)_2$ ,  $(4)_2$ , and  $(3)_2$ , found at locations 326, 330, and 334 in the codebook. For each recursion, the values are larger than 3, so the next three bits are all zero. For  $(2)_2$  at 338 in the codebook, the value is 1 which is less than 3. The new number is  $3-1=2$ , the codeword length and the number of ones remaining in the codeword are reduced by one and the sixth bit is set to one. The next value to compare is  $(1)_1$  at 349 which is greater than 2. The new number is  $2-1=1$ , the codeword length and the number of ones remaining in the codeword are reduced by one, and the seventh bit is set to one. The next value to compare is  $(0)_1$  which is equal than 1. The eighth bit is set to zero and the algorithm stops. The conversion of the numerical value 58 results in a codeword of 11000110 as shown in 310b of ~~Figure 32~~ Figure 23. Note that this value equals the sum of the codebook entries when the number was greater than the codebook entry,